

CLAIMS

What is claimed is:

1 1. A method for collision recovery interface support in a home phoneline networking
2 alliance (HPNA) control chip, the method comprising the steps:

3 (a) providing transmit data path logic to receive and transmit data packets within the
4 HPNA control chip; and

5 (b) consolidating the transmit data path logic to include a transmit state machine that
6 handles interfacing the transmit data path logic to at least two separate collision recovery
7 logic means of the HPNA control chip through a minimal number of generic interface
8 signals.

9 2. The method of Claim 1 wherein the minimal number of interface signals further
10 comprises a GO signal from each separate collision recovery logic means.

11 3. The method of Claim 2 wherein the minimal number of interface signals further
12 comprises a new transmit signal.

1 4. The method of Claim 3 wherein the minimal number of interface signals further
2 comprises a transmit done signal.

1 5. The method of Claim 4 wherein the minimal number of interface signals further
2 comprises a transmit priority indicator from the transmit data.

1 6. The method of Claim 1 wherein the at least two separate collision recovery logic
2 means further comprises a BEB collision recovery means.

1 7. The method of Claim 6 wherein the at least two separate collision recovery logic
2 means further comprises a DFPQ collision recovery means.

1 8. A system for collision recovery interface support in a home phoneline networking
2 alliance (HPNA) control chip, the system comprising:
3 at least two collision recovery means for providing collision recovery in the HPNA control
4 chip according to at least two data rate standards; and
5 a transmit data path logic means including a transmit state machine that interfaces with the at
6 least two collision recovery means through a minimal number of generic interface signals.

1 9. The system of Claim 8 wherein the minimal number of interface signals further
2 comprises a GO signal from each collision recovery means.

1 10. The system of Claim 9 wherein the minimal number of interface signals further
2 comprises a new transmit signal.

1 11. The system of Claim 10 wherein the minimal number of interface signals further
2 comprises a transmit done signal.

1 12. The system of Claim 11 wherein the minimal number of interface signals further
2 comprises a transmit priority indicator from the transmit data.

1 13. The system of Claim 8 wherein the at least two collision recovery means further
2 comprises a BEB collision recovery means.

1 14. The system of Claim 13 wherein the at least two collision recovery means
2 further comprises a DFPQ collision recovery means.

1 15. A home phone networking alliance (HPNA) network control chip capable of
2 collision recovery interface support, the chip comprising:
3 a media independent interface (MII);
4 a physical layer (PHY); and
5 a media access control (MAC) coupled between the MII and the PHY, the MAC
6 further comprising at least two collision recovery means for providing collision recovery
7 according to at least two data rate standards, and a transmit data path logic means including
8 a transmit state machine that interfaces with the at least two collision recovery means
9 through a minimal number of generic interface signals.

1 16. The method of Claim 15 wherein the minimal number of interface signals
2 further comprises a GO signal from each collision recovery means, a new transmit signal, a
3 transmit done signal, and a transmit priority indicator from the transmit data.

1 17. The method of Claim 15 wherein the at least two collision recovery means
2 further comprises a BEB collision recovery means.

1 18. The method of Claim 17 wherein the at least two collision recovery means
2 further comprises a DFPQ collision recovery means.